The Council re-assembled at the Council Chamber, Fort St. George, at 11 a.m. on Friday the 24th March 1922, the hon. Diwan Bahadur Sir P. RAJAGOPALA ACHARIYAR AVARGAI, K.C.S.I., C.I.E., President, presiding.

I DEMANDS FOR GRANTS.

DEMAND XIX-AGRICULTURE-cont.

The hon. the President:—"The Council will resume discussion of Demand XIX—Agriculture."

Motion 586.

Mr. C. V. Venkataramana Ayyangar:—"Sir, 1 beg to make the following motion:—

586. To omit the allotment of Rs. 1,200 for duty allowance to additional assistant to the Director.

"I do not think I need say much on this point. The hon the Home Member challenged the House to decide on the motion before it yesterday regarding the duty allowance to the personal assistant to the Director and as a result of the decision already arrived at, both the House and the Government are morally responsible to accept this motion. I request the House to pass this motion."

The hon. Rai Bahadur K, Venkata Reddi Navudu:—"I do not think there was any question of challenge by my hon. Colleague, but he was only speaking of a paper which reached his hands; otherwise the discussion would not have taken place. So far as the resolution now before the House is concerned, it is more or less the same as was discussed yesterday, and since the House decided for the omission yesterday, I do not propose to object to the motion now."

The motion was put and carried.

Motions 587 and 588.

The following motion standing in the name of Mr. T. C. Tangavelu Pillai being identical fell through in consequence:—

587. To omit the allotment of Rs. 1,200 for duty allowance to additional assistant.

The following motion was not made:-

Mr. B. MUNISWAMI NAYUDU :--

588. To reduce the allotment of Rs. 4,000 for travelling allowance by Rs. 400.

Motion 589.

Mr. A. RANGANATHA MUDALIYAR:—"Sir, I beg to make the following motion:—

589. To reduce the allotment of Rs. 73,887 for Agricultural College by Rs. 18,000.

"My object in moving this resolution is to draw the attention of the hon, the Minister for Development to what I consider to be a superfluous establishment for the Agricultural College. In 1919-20 we had one Principal and Superintendent on Rs. 500-50-1,000, one Assistant Principal

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on Rs. 500 and one lecturer in engineering on Rs. 400. In 1920-21 instead of one assistant principal, we have two men on Rs. 500 and Rs. 400. respectively, the others remaining as usual. In 1921-22 there appears to have been some rearrangment of work. The Principal who was till then called Superintendent also, appears at least in the budget merely as Principal on Rs. 1,500 per month. I do not know if the omission of the word 'Superintendent' means that his work was reduced in any appreciable way. He was assisted by a Vice-Principal and an Assistant Principal. In the budget for 1922-23 there is no addition to the Principal, Vice-Principal, and Assistant Principal. The appointment of a lecturer in agricultural engineering still continues though the pay is shown in another page. I think, Sir, that either the appointment of the Principal or that of the Vice-Principal may be done away with. I do not know what amount of teaching work the Principal and the Vice-Principal respectively have. I am of opinion that, in addition to the few hours of teaching work they may have in the college, they may well attend to research work also. So if there is any chance of a vacancy occurring either in the place of the Principal or that of the Vice-Principal, I think it need not be filled up and the work may be redistributed so that an additional appointment may be unnecessary."

The hon. Rai Bahadur K. VENKATA REDDI NAYUDU:-" So far as these additional appointments are concerned, they are really no additional appointments at all. The Principal and the Vice-Principal were already there. It so happened that the Principal went on leave and so there was some saving under that head. As regards the Assistant Principal, I may bring to the notice of the hon. Member that he should have been strictly called an assistant professor and not assistant principal. As regards agricultural engineering, agricultural teaching must necessarily include some teaching in agricultural engineering because the students should have to know the various implements essential for cultivation and unless the students are taught something of agricultural engineering they will be under practical difficulties. I may bring to my hon. Friend's notice that formerly there were three classes, whereas now we have five. The two new classes have reference to the new course that has been introduced. The college will be affiliated to the University of Madras very soon. Several hon. Members of the House have pressed upon me the need for such affiliation. That is going to happen very soon and the matter is with the University and I understand orders will be passed shortly. New classes have been opened and that accounts for a little more expenditure. As a matter of fact, my hon. Friend may also see that whereas the expenditure under the votable list was Rs. 81,000 previously, this year it is only Rs. 73,000. I may also bring to the notice of my hon. Friend that the Poona College, which I suppose does not compare so favourably with ours-I do not refer to the Pusa College-costs Rs. 1,39,000 whereas our college cost us only one lakh and fifteen thousands. I therefore think that my hon. Friend will be satisfied with the information."

Mr V. C. Vellingiri Goundar:—"Sir, I have to say a few words on the general administration of the department."

The hon. Rai Bahadur K. Venkata Reddi Nayudu:—"Probably, Sir, the proper place for my hon. Friend to make his remarks on the general administration of the whole department will be at the end when motions for reduction of the total grant are taken up. I only suggest this to him."

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The hon, the President:—"I think the hon. Member can speak about the Agricultural College now and reserve his remarks about the general administration till the motions for reduction of the total grant are taken up."

Mr. V. C. Vellingiri Goundar:—" I will then reserve my remarks to the end, Sir."

Diwan Bahadur M. RAMACHANDRA RAO PANTULU: - 'Sir, I should like to make a few observations on this question of the Agricultural College. Reference has been made by the hon, the Minister to a proposal to affiliate this college to the University. Perhaps hon. Members are aware that the proposal has already been approved by the Senate and I do not know whether the decision of the Senate has reached the Government. My point however, Sir, is this. The Royal Commission on the Public Services has recommended that agricultural education should be so improved and so expanded and brought up to the highest standard of European or American efficiency as to permit the recruitment of agricultural officers entirely from this country. And this was more than ten or twelve years ago when the report was under consideration. I submit, Sir, that neither the Secretary of State nor the Government of India have taken any steps in this direction up to the present day. Now that subject is a transferred subject and is entirely under the control of this Council, and I sincerely trust that there will be no more delay in making agricultural education efficient so as to furnish other than merely agricultural officers receiving agricultural training. The aim and object of the Agricultural Department as hitherto managed by Government has been merely to manufacture officials and to give agricultural education only to such number of persons as is necessary to maintain the department. That ideal ought to be given up entirely and it should be the aim and policy of the Ministry of Agriculture to provide the necessary facilities for the highest form of agricultural training in this country not only of the collegiate type but also of the lower type of agricultural education. I have had the opportunity recently of looking into the question somewhat more fully than I had previously done and I am more than ever convinced that the first necessity of the situation in this country is to expand agricultural education to the highest standard prevailing in western countries more especially in view of this ultimate idea of recruiting agricultural officers entirely here. There is no question of principle involved. There is absolutely no justification for any recruitment outside this country in this matter. This matter has already been fully considered by the Royal Commission on Public Services and they have once for all laid down that the recruitment of agricultural officers should be done in this country and that a beginning should be made by expanding these colleges. Sir, as to how it can be done, as to whether there should be an agricultural college of the highest standard of efficiency in each province or whether there should be a central institution financed by more than one Provincial Government or whether it should be done by expanding the central institutions at Pusa is a matter for the Provincial Government and the Government of India. do not propose to deal with that aspect of the matter. It is a costly business. no doubt, to bring the agricultural colleges to the highest standard of efficiency prevailing elsewhere. That is a matter to be negotiated between the several Provincial Governments. Therefore, Sir, while not objecting to this grant, it seems to me, Sir, that we have to go still further and much further than has hitherto been done in the matter of agricultural education."

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Mr. A. RANGANATHA MUDALIVAR: —"Sir, the hon, the Minister has told us that the college is, so to speak, being reorganized, and I do not know if in connexion with that rearrangement of work the present staff will be necessary. I wanted to know whether there was enough work for them at present, what they are teaching and all that; but anyhow, in view of the fact that the college is going to be placed on a different basis, I do not press this motion."

The motion was by leave withdrawn.

Motion 590.

Mr. C. V. Venkataramana Ayyangar:—"Sir, I beg to make the following motion:—

590. To reduce the allotment of Rs. 1,31,040 for salaries for research

institute by Rs. 1,000.

"Before proceeding further, let me once for all say, Sir, that it is not my intention either in making this speech, or in any other speech which I have made, so far as the agricultural college and the department of agriculture is concerned, to say anything against them or against the amount of money that is spent on them. But many of us are certainly against whatever may be found to be a waste in this or in any other allied department. If I now say a few words, Sir, it is only just to place the matter before the hon, the Minister so that he may take any further action which may be necessary in regard to it. So far as this branch of the department is concerned, we need hardly say that the whole country is interested, as the hon. Member Mr. Ramachandra Rao said, in the development of agriculture in all its various forms. In one of the anniversary meetings of the college, we had to express our regret that in these budget discussions we could not at all move for any increase, and we were then advised that it might be done by way of a resolution. But we did not want to move any resolution for increasing the expenditure, because there is the hon, the Minister in charge of this department who takes a good deal of interest in its development and there is also the Director who has got experience in this matter, and if they move for any additional grants, the House will be most willing to sanction the required grants.

"As regards the work done in the research institute, the hon. the Minister gave us on a previous occasion a list of the work done by some of these special experts. I do not charge him with anything, but I may add that, just as a dramatist throws down the curtain when the play has just come to an end and he has nothing more to show, the hon. the Minister threw down his paper. So far as the mycologist is concerned, the hon. Member gave a number of instances where he has done very good work. I admit all that. It may be, Sir, that he is an Indian, or it may be that it is a special department in which he has got much scope to do work, but there is no doubt that the mycologist has done excellent work. I had opportunities of examining his laboratory and some other works he has done and I must

say that he has so far done very good work.

"So far as the entomologist is concerned, I have got, Sir, some complaints. I have mentioned them both before this House and in the agricultural college itself. The entomologist is a European and an English-trained specialist. He has got two gazetted assistants and two non-gazetted assistants. But, so far as his work is concerned, I hope the hon, the Minister

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will be able to-day to give us the results that have been so far achi ved by his department. I know the hon. Member will be able to say that he has examined so many cotton worms, that he has examined so many other worms connected with other diseases, but what I want to know is, and I will be very glad if some such information is forthcoming that as regards any worm which he has so far examined, any specific remedy has been found out to prevent any particular disease, something other than the usual remedy of saying, 'take away all the plants and there will be an end of the disease.' So far as this department is concerned, we blame it for not becoming more popular and for not doing sufficient work to make the people go to it. so far as we here are concerned, we can only request the hon, the Minister to remember the proverb that 'if the mountain will not go to the Prophet, the Prophet must go to the mountain '. The people are not in a mood to go to the Agricultural College; we must make the college go to the people. i have said, the best way to do this will be to have something like itinerary farms by which these people may go to a village, stop there for about 15 days, then move on to another village and then revisit them after six months or so. So far as this particular Entomological department is concerned. the two diseases that are particularly noticeable in the Coimbatore district are, one as regards cotton and the other as regards betel vine. So far as the betel vine is concerned, there is one important thing which goes to make this department most unpopular. There are two branches of this department, the Entomological or the Research department and the general department. I brought this disease as regards the betel vines to the notice of the Entomologist through the Director of Agriculture. After a few days of investigation, there came a memorandum from the Director of Agriculture saying that the worm had nothing to do with that disease and that the whole trouble was due to some defects in cultivation. Thereafter he asked the Assistant Director of Industries to investigate into this matter. The Assistant Director of Industries then told me that it had absolutely nothing to do with any defect in cultivation and that the disease was due to the worms and that therefore if anything had to be done, it could not be done by the general department but only by the Entomological department. Thus, so far as the public are concerned, it does not really matter for them whether the Entomologist finds out the remedy or the general department. I know personally from various experiments made that whereas in places where these worms existed the sugarcane cultivation was very had, the cultivation was certainly better in the adjacent fields where they did not exist. So, that is a sure proof that the disease is brought about by the presence of these worms only. Hence I believe the hon, the Minister will be conferring a great boon on the public if he were to direct the Entomologist to enter into this matter very carefully, and to devote some particular time with a view to destroy these worms and not to say simply after one or two years that they spent a lot of time and money over it, but that the worm did not yield to them and therefore that it had nothing to do with the disease. In Coimbatore this betel vine cultivation and the sugarcane cultivation was going on in very many places, but the cultivation has now considerably fallen owing to this disease and the rents of landlords also were falling. Mr. Macmichael once said while presiding over a meeting in that college that the department had nothing to do with the increase of rents, but I don't think he was correct for the yields will have to be increased if there is to be an increase in the rates. The fact is, Sir, that the betel vine disease is a dangerous one so far

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as the Coimbatore district is concerned. The disease is affecting that particular crop as well as the sugaroane cultivation very seriously, and both of these are very valuable crops in the Coimbatore district. Therefore if proper attention is directed towards this, the department will be doing excellent work.

- "Only one other thing I have to say with regard to sugarcane. I do not know why the sugarcane expert has been taken away from the Provincial Government. We had one sugarcane expert and an assistant sugarcane expert before under this Government. Now it has become an Imperial matter. No doubt the Imperial experts will be devoting some attention so far as this Presidency also is concerned, but what I want the hon, the Minister to see is whether it would not be more desirable to have at least an assistant sugarcane expert here who will be able to devote his time fully so far as this Presidency is concerned. Sugarcane is a very valuable crop here. The Imperial duty on sugarcane is likely to be increased, or it has been increased already by this time. There will be a great demand for the swadesi manufacture. In addition to the question of jaggery, which I hope in due time the hon, the Minister for Excise will deal with, sugarcane is another important source of sugar and any attempt made to improve the sugarcane cultivation and any amount of money spent on it will, I am sure be amply justified. Therefore we want a sugarcane expert also, an assistant or somebody else, who would be able to devote his full time towards this. The hon, the Minister may say that the present Imperial sugarcane experts also are devoting a lot of their time towards this Presidency, but we want a man who could devote his time fully towards this Presidency, and I hope the hon, the Minister will see to that, if possible.
- "As I have already said, it is not at all our intention to curtail any of the work or expenditure in this direction, but what I want to say is this: This Agricultural College and the Research Institute are situated in the same building, or at least in adjacent buildings and as such, much can be done to utilize the time of the experts also more in connexion with the teaching in the college. That will also show us some means of retrenchment without in any way impairing efficiency. Therefore, if there is any vacancy either in the college or in the institute, the hon, the Minister will consider the desirability of putting the same person on to the college as well, as it is being done in some cases.
- "With these few observations, I might make a personal request to the hon, the Minister just to do what he could in these directions to help both the landlord and the tenant without in any way throwing the interest of either to the winds. I have got full confidence in him and I request him to devote a little more attention to these matters in which case I am sure he will be able to do real good to the public."

The hon. Rai Bahadur K. Venkata Reddi Navudu:—"Sir, my first duty is to thank my friends Mr. Ramachandra Rao and Mr. Venkataramana Ayyangar for their reasonable attitude, and the only attitude that can possibly be taken in a matter like this, that we must expand agricultural education and research work, and that, if possible, more money should be put into them. As regards their criticisms, Sir, I am indebted to them and if my interference in any way can lead to greater production either in the work of these experts or in that of the college staff, certainly I may assure my friends I shall not be wanting.

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"Well, Sir, we are told that I stopped speaking about the Entomologist on the last occasion when I spoke so much about the Mycologist. It was not because, Sir, I had not a good account to give of this expert officer, but because you put limitations on our time and in fact we had only one half day for the seven Members of Government and I had to adjust myself to that time. As it was, if I am not mistaken, I had to speak for more than an hour on that occasion, and to take more time would have been most unreasonable and perhaps would have been an annoyance to the Members of Government, not to speak of the inconvenience I would have been causing to my hon. Colleagues. I can only say this at this stage that I have got with me—not here, but in my house—a report of the Entomologist showing all the work he has done during the period he has been there. I shall be very happy to place it in the hands of my hon. Friend and he will see from it that really good work is being done. It may be, Sir, that much attention has not been devoted to betel leaf, but the reason, I believe, is this.

"Experts in the beginning at least look to the more important crops such as paddy and cotton. My hon. Friend himself has referred to the research work, the study of bacilli, their life history, their course of development and so forth that severally form the work of our Entomologist and the pamphlet that I was speaking of will give my friend an idea as to what has been done in that direction. hon. friend also wanted, Sir, that I should give another instance of the line in which the Entomologist has been working. I may mention There is in the Kistna district a station in which the the paddy crop. worms that dangerously affect the paddy crop were being examined and I may inform my hon. Friend that certain good results have been obtained. As regards doing work more than talking, I am afraid the experts don't talk much. They sit in their rooms, Sir, poring over and through that long tube which they call a microscope, they try to make little things look big, things which do not appear to the common eye. Such people do very little talking. I can very well understand that immediate results of a far reaching kind cannot be expected in so short a time. I have often submitted to the House that the success of a scientist has to be built upon a series of failures. Let us not grudge a few failures in the case of these scientists. Quite recently I received a book which I have not brought with me now. It dealt with the chemical industries of Germany. There is one sentence in that book the gist of which is this: for every 100 scientists that were employed on research work 99 were failures and one a success. But if it was possible to estimate in money the value of the work turned out by this one chemist it was more than that of all the other 99 put together. One such single research in the case of paddy will be enough for us. I am not referring to the single seed planting or seed rate. But by cross-breeding they have been able to evolve a strain which has produced 16 per cent more than what is ordinarily got from the ordinary strains. The father seed when planted in the best soil and under the best circumstances was able to produce, let us say, hundred measures. Then this new seed from that seed prepared anew by cross-breeding produced 16 per cent more or 116 measures. I suppose it is called Coimbatore No. 24 and there is a persistent demand for it. So far as the sugarcane expert is concerned he is taken over by the Government of India because the Government of India have been paying the whole cost. He has not been taken away from our control and the

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Director of Agriculture has full control over him and he works under this Government. I may also bring to the notice of this House that sugarcane is not so widely planted in this province as it is in Northern India and that is the reason why he had to be taken away from us. In fact, the Government of India have been paying for him from the beginning. It is but right that for account purposes the cost of his department should be put under the Government of India. I have very little more to say except that I shall be very glad certainly to avail myself of any advice from my hon. Friend Mr. Venkataramana Ayyangar and if there is anything that I can do, it only requires a word from the hon. Member. I am going to Coimbatore, the place where he lives, and both of us can visit the college and see for ourselves if anything further than what is being done can be done."

Diwan Bahadur M. RAMACHANDRA RAO PANTULU: - "I should like to make one or two remarks in connexion with this Research Institute. One point which was very much discussed was whether agricultural research should be kept separate from agricultural education. I trust that the time will come when this idea that agricultural research should be divorced from agricultural education will be given up. It had been pointed out to us by more than one student in the United Kingdom that opportunities for agricultural research in this country are not made available to them, that experts for research work are entirely recruited from the United Kingdom with the result that those who wish to pursue agricultural research have to go abroad. It is for these reasons that many of our students, attracted by the opportunities of getting into the Imperial Agricultural Service, are now in the British Universities in large numbers. I met them almost in every University and the universal complaint was this: that agricultural education in this country has suffered considerably by keeping the research portion of it entirely closed to agricultural students. The idea of the Royal Commission on the Public Services was that the Agricultural Research Institute at Pusa should be expanded and combined with the Agricultural Colleges and that the whole basis of agricultural education should be expanded and amplified in such a way as to combine research with instruction. This essential idea has been kept in abeyance all these years and I trust, Sir, that the hon. the Minister would tackle this problem immediately and see what can be done to remedy this obvious defect in our present system. Of course I do not wish to refer to a statement made that the conditions of agricultural instruction in the United Kingdom are not at all suited to this country. It is a much wider question than can be discussed under this motion. But if agricultural research is to make any advance in this country I have no doubt whatever in my mind that it should be so extended and combined that the majority of students pursuing agricultural instruction should have opportunities of developing as experts in all the various branches of agricultural knowledge. That I submit is the chief point for consideration. With reference to the budget that has been already discussed I trust that before this item comes up next year this question will have received attention."

Mr. C. V. VENKATARAMANA AYYANGAR:—"I want to say a few words. I need hardly express my thanks to the hon. the Minister. But I wish to say one thing. He need not wait till he goes to Coimbatore and takes me to the college."

The hon. Rai Bahadur K. VENKATA REDDI NAYUDU: - We will both

see in April next."

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Mr. C. V. VENKATARAMANA AYYANGAR: -- "What I say is this. There is in the office of the Director of Agriculture the whole correspondence dealing with the question I have referred to. One particular agency says that it falls under the range of the other agency and the other agency says that it is the duty of the first agency. In the meantime the worms go on increasing as they always do. This is prevalent both in the case of the sugarcane and the betel vine. I request him not to spend even one more day but at once to issue orders to the Director of Agriculture, whose subordinates are fighting among themselves as to which man should do a particular work, to see that the disease is at least reduced. I know about the statistics that will be furnished by the Entomologist about the whole number of worms analysed. the number of worms dissected and all this and all that. All that I say is that so far as the treatment of the disease is concerned, nothing practical has been done. Instructions should be issued not to find out the life history of the worms but to find out the life history of the disease, the means to eradicate it or at least to reduce the effects of the disease. These are the points so far as the betel vines are concerned. There is already considerable correspondence about it and I request the hon, the Minister to issue instructions to the Director to see that something is done. As for the sugar expert I know he is being paid by the Imperial Government. My fear is that he may be suddenly transferred to Pusa. We must have some one under the control and under the pay of this Government so that his attention and his responsibility may be confined to this Presidency. These are the points which the hon, the Minister may take into consideration and I think I am obliged to him for the kind way in which he has taken my suggestions. I will not call them advice. It only remains for him to put them into action."

The motion was by leave withdrawn.

Motion 591.

The following motion was not made:-

Mr. B. MUNISWAMI NAYUDU ;-

591. To reduce the allotment of Rs. 32,000 for travelling allowance by Rs. 3,200.

Motion 592.

Mr. A. RANGANATHA MUDALIYAR:—"I beg to make the following motion:—

592. To reduce the allotment of Rs. 2,26,333 for research institute by Rs. 20,000.

"Sir, in making this motion for reduction I have to make one or two observations. Lust year one of the hon. Members of this House in winding up his remarks on the Agricultural department spoke as follows; 'I am not at all satisfied with the Agricultural department which has not been able to do any good to the ryot population either in the way of improving manure or raising new crops or in the matter of economic growth of crops which are absolutely necessary in the interests of the cultivator.' Needless to say, Sir, these remarks have peculiar significance when it is remembered that they were made by no less a member than the present colleague of the hon. the Minister for Development. I refer to the hon. Mr. Patro. I am quite prepared to agree that for really good work we may need people of a higher calibre than those who are now employed in the work and that such people

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need larger pay than what each of them is receiving now. Even if it is so I would rather wish that we pay far more and get a little good than employ any number of officers on really high pay though not so high as the firstclass man may demand and yet derive no benefit worth mentioning. Turning to the staff I find that there is a tendency to hastily conclude that good work is done simply because the pay of particular people has been increased. That cannot be so. For example in the research institute department we had formerly one agricultural chemist and one assistant agricultural chemist. Now the budget provides for three assistant agriculturists. Further all these are gazetted officers. I think really for the sort of work that is done by these people we may have only one gazetted assistant and not three as provided for in the budget. The work of analysis now has become a kind of routine work. It is but reasonable therefore to expect that this work can be carried on by subordinate officers under the supervision of the expert, viz., the agricultural chemist and his gazetted assistant. Take again the case of the agricultural botanist. So far, all his attention seems to have been confined to the southern districts of the Presidency. The area under paddy cultivation is no doubt large there. But in the northern districts, Kistna, Gödavari and Ganjām also, there is a good deal of land under paddy cultivation. Is it not time that the expert who has been so long remaining in the south should turn his attention to the northern districts and see what he can do there?

"The third appointment, I wish to refer to is that of the bacteriologist, who at present is Mr. Norris."

The hon, Rai Bahadur K. Venkata Reddi Nayudu:—"Mrs. Norris."
Mr. A. Ranganatha Mudaliyar:—"Her husband also is a bacteriologist."

The hon. Rai Bahadur K. Venkata Reddi Nayudu:—" He is not now in our province."

Mr. A. Ranganatha Mudaliyar:—"Has that appointment been abolished then? From the civil list I find that both the names of these people are borne on the list. I thought the whole thing appeared to be rather anomalous. The place of a married woman is, I think, more in her house than in her husband's office. Are they to work in the same place and go on leave simultaneously? There are so many questions connected with this which I thought I would raise here and get an answer from the hon, the Minister.

"As regards the Entomologist, I have also some complaint to make. My districts also are periodically affected by these pests. Recently we had a pest called 'Agginurugu'. I believe the Collector brought it to the notice of the authorities and so far, I think, nothing has been done to investigate and find

out how this pest can be rooted out."

The hon. Rai Bahadur K. Venkata Reddi Nayudu:—"Sir, so far as the increase in the staff is concerned, it necessarily follows because more experts are being appointed. My hon. Friend next referred to the question of sending this paddy expert from the south to the north. In the south it will be remembered that only some experiments on rotation and manures were carried on. Yet the question of strain still remains and that will be attended to in the new farm that will be started. At the same time I may bring to the notice of my hon. Friend that the question of sending him and getting more work of this kind done in the Northern Circars is just now engaging the

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attention of the Government and I hope I shall be able to satisfy my hon. Friend soon."

Sriman BISWANATH DAS Mahasayo:—" May I know, Sir, where the hon the Minister is going to have an agricultural school or farm?"

The hon. Rai Bahadur K. Venkata Reddi Nayudu:—"The agricultural school will be in Anakapalle or Samalkot so far as the Northern Circars are concerned.

"As regards the appointment of Mr. Norris and Mrs Norris, my hon. Friend made some observations which I don't think I can leave unchallenged. We were told that the place of a wife is in the house and not in the office or in the laboratory. That is no doubt our conception in this country; but in civilized countries, if a lady thinks that she can serve humanity and the world much better in the laboratory than in the home, she is generally allowed to carry out her wish. As regards the inconvenience to the department when they go on leave, I may tell my hon. Friend that before her appointment, we made it a condition precedent that the leave or transfer of one should not in any way interfere with the presence of the other at his or her post. As for separation it is their concern and not ours and they have agreed to remain separate when one goes on leave or is transferred. I may tell the House, however, that both Mr. Norris and Mrs. Norris have been found to be devoted to their work and have been doing excellent work and Government have absolutely no reason to complain of their being together in the same place.

"The last point raised by my friend was about the 'Aggipurugu'. Government have received no information about this matter and probably if my friend had only written to me, I would have been able to do something. But I have just received a note saying that Mr. Sampson, the Director of Agriculture, who had information of this has promised to depute an officer to investigate it. I shall look into it and if an officer has not already been sent, I will see that one is sent immediately."

Mr. A. Ranganatha Mudaliyar:—"I think the disease has now disappeared. I do not know what the officer to be deputed now is going to do hereafter. I am sure the Collector of the district made a report on this question and I do not know what arrangements exist in the department for such information to reach the hon, the Minister in time. Another question which has not been answered is that in the place of so many gazetted officers, some non-gazetted officers may be appointed. For example, I referred to the appointment of the Entomologist. I am sure that till recently there was only one gazetted officer; but now I think there are two of them. This makes a great difference. The non-gazetted officers will be paid far less than the gazetted officers, i.e., Rs. 250—750 a month. Similarly in the case of assistant directors, I suggested, that there might be one gazetted officer to hold that office and that the others need not be gazetted officers. I say that without reducing the number it is possible to save money. May I request the hon the Minister for Development to give his consideration to this aspect of the matter also?"

The hon. Rai Bahadur K. Venkata Reddi Nayudu:—"All that I can say is that these assistants are persons who will be in direct and close touch with the senior officers and in these days when we are fighting for the appointment of more Indian officers in the Indian Agricultural service,

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unless these assistants are prepared for places in the Indian Agricultural service, unless they are directly trained and unless they are men of a certain calibre and receive that kind of training which is essential for their being appointed to that service, we shall be losing the opportunity of training them properly. Subject to this, I shall be glad to consider the question raised by my hon. Friend."

The motion was by leave withdrawn.

Motion 593.

The following motion was not made :--

Mr. R. T. KESAVALU PILLAI:--

 $593.\ To\ reduce\ the\ allot ment\ of\ Rs.\ 2,26,333\ for\ research\ institute\ by\ Rs.\ 1,00,000.$

Motion 594.

Mr. T. C. TANGAVELU PILLAI:—" Sir, I beg to make the following motion:—

594. To reduce the allotment of Rs. 33,141 for assistant directors of agriculture by Rs. 16,576.

"Sir, in making this motion, it is my intention to draw the attention of the hon. the Minister that for the better working of this department, it is much better that they enter into the confidence of the people and for this it is necessary that there should be an advisory board in each centre and the directors are asked to take their advice. This country being an agricultural country, it is necessary that the advice of these people who are trained in agriculture is taken. They will give better advice and with their co-operation this department can work much better. I may also bring this fact to the notice of the hon, the Minister, that the United Provinces Government have recently some out very boldly with a policy to reorganize the agricultural department."

The hon. Rai Bahadur K. Venkata Reddi Nayudu:--" Sir, so far as the assistant directors are concerned, they work in co-operation with the deputy directors. It has been my impression, Sir, that these officers are in close touch with the agriculturists of the country. In fact, their work consists in that. My friend says that the question of agricultural boards may be considered. As it is, we have got an agricultural standing committee advising me. But since it seems to be the desire of my hon. Friend that there should be some sort of organization in the districts, I shall be glad to consider any suggestions that may be made in that direction and if my hon. Friend will be good enough to give me an idea of what sort of boards he wants, I will certainly consider the point."

The motion was by leave withdrawn.

Motions 595 to 600.

The following motions were not made :-

Mr. B. MUNISWAMI NAYUDU:-

595. To reduce the allotment of Rs. $75{,}000$ for travelling altowance by Rs. $7{,}500$.

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Mr. A. RANGANATHA MUDALIYAR:-

596. To reduce the allotment of Rs. 4,42,300 for deputy and assistant directors of agriculture by Rs. 100.

Mr. C. V. VENKATARAMANA AYYANGAR :-

597. To reduce the allotment of Rs. 1,67,000 for improvement of cotton cultivation by Rs. 17,000.

Mr. A. RANGANATHA MUDALIYAR :-

598. To reduce the allotment of Rs. 62,200 for Agricultural engineering by Rs. 3,000.

Mr. M. C. RAJA :--

599. To omit altotment of Rs. 30,500 for eradication of the palmyra disease.

Rao Bahadur T. A. RAMALINGA CHETTIYAR :-

600. To reduce the allotment of Rs. 14,28,421 for agriculture by Rs. 25,000.

Motion 601.

Diwan Bahadur M. RAMACHANDRA RAO PANTULU: -- Sir, I move:—601. To reduce the allotment of Rs. 14,28,421 for agriculture by Rs. 25,000.

" I wish to bring to the notice of the hon. the Minister, in moving this motion, one or two facts connected with the agricultural well-being of the ryots. The first relates to chemical manures. The hon, the Minister is aware that there has been considerable trouble in the deltaic districts in regard to what is known as 'patimannu.' I think it is not necessary to dilate at length on this matter. Hon. Members coming from the Kistna and the neighbouring districts are aware that the village site has been dug up and pits are made to be filled up by the department of Public Health. These pits have been dug up for taking away what is known as 'patimannu' containing some phosphates for manuring fields. This source of supply has been exhausted and the department some years ago made experiments and they closed their experiments on the ground that their chemical manures could be replaced by something which could be obtained from Messrs. Parry & Co. I do not know if it is a wise policy. It means this: that persons have to go all the way to Ranipet to get this stuff from Messrs. Farry & Co. It has been pointed out in more than one agricultural conference during the last 6 or 7 years that the railway freight rates on agricultural manures should be reduced and that was the opinion of very responsible agricultural officers and notwithstanding many representations on this subject, I am very sorry that nothing has yet been done in this direction of cheapening agricultural manures for the agriculturists.

"Now the only proper thing to be done is to undertake the manufacture of manure somewhere in one of the districts on the east coast and to establish another factory somewhere in the southern districts with the necessary apparatus for the manufacture of chemical manures on a large scale. I think this is the only solution of the problem.

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"Such a problem has not yet been tackled. I suggest that no time should be lost by the Government in establishing a factory for the manufacture of chemical manure on the east coast on a scale which will pay the agriculturists to take it and to apply it to their lands. We should do something more than refer these people to Messrs. Parry & Co.

"Another question in connexion with manures is that of fish-guano which was in use until quite recently, but for some unaccountable reason the supply has not been equal to the demand. I also learnt recently that the manufacture of manure out of fish-guano has been completely stopped. I do not wish to make any definite assertion as to this fact. But whatever it is, if it has to come to the east coast, it has to be brought all the way from Calicut and the trainage may cost more than the value of the manure itself. Therefore this question of manufacture of chemical manure to take the place of "patimannu" which is supposed to contain "phosphorus" and which is now exhausted is one of supreme importance. So far as I know, nothing satisfactory has been attempted. I know some experiments were made in "patimannu" some years ago and they were quickly abandoned without any satisfactory results. That is the first question I should like to place for the consideration of the hon, the Minister for Development.

"The second question relates to the question of demonstration. In his opening remarks on the budget the hon, the Minister for Development stated that scientific experiments will be made in agriculture by the Government. He also stated that a horse can be taken to a pond but it cannot be made to drink water. I am afraid that is not the correct attitude to take in the matter."

The hon. Rai Bahadur K. VENKATA REDDI NAYUDU:—" It was not the attitude of the Government.—I only stated it in reply to an interruption by some hon. Member."

Diwan Bahadur M. RAMACHANDRA RAO PANTULU:-"Sir, I have a distinct recollection of three things, that a horse was referred to, and also a pond and the horse being taken to water. It may be that I am wrong in my inferences. But these three observations are quite clear in my mind and they came from the hon, the Minister and not from anybody else. But however I do not wish to pursue the matter any further. We know our agricultural population is very ignorant and the only thing that appeals to them is ocular demonstration. A large sum of money is being spent in other countries in this direction. Whatever may be the state of education in those countries, the person who corresponds to the ryot here is as conservative towards the results of scientific agriculture as he is here and all those prejudices are broken down only by ocular demonstration, by lectures and so That is of the utmost importance for the promotion of the knowledge which many of our scientists in agriculture are now making available to the ryot. Therefore I suggest that there should be expansion of the activities of the Agricultural department in the matter of demonstration. All that I know is that there are at present a small number of agricultural inspectors who tour round the districts. They are not enough and I am not sure that they are doing useful work in this direction. What is necessary is that consistently with our present finance, the whole thing should be carried out in a manner in which the ryot can digest easily. It is true that leaflets are printed, but I do not know how many are read by the ryot. It is 24th March 1922] [Mr. M. Ramachandra Rao Pantulu]

entirely a question of demonstration. My hon. Friend wishes us to understand that the ryots are really benefited by the various experiments which are being conducted by our agricultural experts. I believe they do not follow the real method of making them agreeable to the ryot and I trust that something will be done to make these experiments also advantageous to the people. Of course it is true that deputy directors go about in the districts but I do not know whether they are perfectly in touch with the agricultural population. No doubt they are required under the rules to be in camp for a certain number of days in every month.

"Therefore I want that these two questions of supreme importance to the ryots, should be tackled properly, one relating to the question of agricultural manures, and the other relating to the consumption of the knowledge made available by these experts and unless proper steps are taken in these two directions, I am afraid the general impression in the country namely that the Agricultural department is of no good to the people will gain ground."

Mr. A. T. MUTTUKUMARASWAMI CHETTIYAR: - "Mr. President, Sir, agriculture is the chief occupation of the bulk of the people in this presidency. We endeavour much to see that the lands yield greater produce. Any attempt proposed to be made by the Government for improvement in the method of cultivation, dissemination of the knowledge of the use of better implements, the storage of manure, the use of leaf manure, the extensive use of single seed planting, which was estimated to effect a saving of nearly a crore of rupees to the ryots in this presidency in the purchase of seed grains -all such attempts made by the Government should be supported by the Council. We are the ryots ourselves and we are the elected representatives of the ryots who form the bulk of the electorate. There is no use attempting to reduce the grant required by the Government under the head 'Agriculture.' If there is any misapplication of the grant, certainly any hon. Member of the Council has his own remedy against any such extravagant; or useless expenditure incurred against the policy enunciated by the Council and the Government. With these few remarks, I strongly oppose the motion."

Rao Bahadur C. V. S. NARASIMHA RAJU: - "Sir, no other subject is better connected with the well-being of the rural population than agriculture and any amount of money which this Government proposes to spend on agriculture will be quite welcome to the members of this Council. But we shall have to see what the arrangements are that the Government have made for the dissemination of the knowledge among the rural population. As far as we can judge from the budget, my impression is that no forward step is taken in the matter of propaganda work. Most of the propaganda work is expected to be carried on by the lower subordinates and the figure of lower subordinates employed stands the same as last year. Of course there is some variation in the number of upper subordinates employed. Last year it was 67 and this year it is 87. I believe that upper subordinates are not intended for propaganda work. Most of the work is being done by the lower subordinates and their number is very small. Very soon the Government must evolve a system whereby all the recent achievements of the department could be brought to the notice of the rural population. We have got agricultural farms with some staff at the rate of one each district or one for two districts. In the past much has

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been done in the matter of expanding the number of agricultural farms, but whenever we visit a farm or have a conversation with the deputy director of agriculture, the general complaint is that he has not got sufficient number of hands to send round to the villages for propaganda work. All the money that is now spent and all the results now produced by the department must be carried out fully for the improvement of the knowledge of the ryot. We cannot afford to wait any longer, for every day we lose is a great loss to the country. I hope the hon, the Minister will see his way to increase the number of propagandists. I know this question is intimately connected with the question of the number of hands available and also with the question of recruitment to the agricultural college. The number of lower subordinates manufactured year after year is very limited: it ranges from 20 to 40. That is a very small number taking into consideration the vast area we have to deal with. This I believe necessitates the establishment of another agricultural school to prepare lower subordinates to undertake propaganda work."

Mr. V. C. VELLINGIRI GOUNDAR :- "Sir, no department of Government requires greater retrenchment or is more capable of admitting greater retrenchment than the department of Agriculture and I believe there is no department which has got such immense potentialities for the good of the country and the ryot, but I confidently assert that no department is so singularly barren of useful results to the tax-payer and the ryot as this. No department spells so much extravagance and waste as the department of Agriculture, I will take the Agricultural College first. The College of Agriculture has cost the Government, heaven knows how many lakhs, ever since it was determined to establish it at Coimbatore with the magnificent structures and quarters for officers and staff. Still in the year 1921 after so much expenditure and with the institution so fully manned with experts, we have the melancholy fact, that for the certificate course, 39 were offered admission but only 26 joined and it is admitted that the course has lost much of its popularity. For the diploma course 28 were offered and 18 actually joined and it was found necessary to grant stipends to all students and even then it is found difficult to induce students from the educated classes to take to an agricultural course. The original object of the college, namely to induce the sons of the ryot to have practical lessons in agriculture have failed in spite of the lapse of years. The whole scheme of the Agricultural College appears to be really in the nature of an experiment still.

"The Saidapet farm and the college were abandoned though after expenditure of vast sums of money and the location at Coimbatore was decided upon and huge sums have been spent and the college side of the institute is confessed to be still not a success. The mere fact that lakhs and lakhs have been spent and are being spent does not go to show that we have emerged beyond the stage of experiment. It is so judging from this fact, that an agricultural school was opened at Anakapalle and after three years of personal attention on the part of the deputy director, the school was closed as not being able to attract any of the ryot and the labouring classes and not serving any useful purpose and the same fate may overtake the college at Coimbatore. The gradual and growing unpopularity of the courses may lead to the closing of the college or removal elsewhere as was done from Saidapet to Coimbatore. Why so many lakhs should have been spent in grand architectural buildings and residential quarters in such a state of affairs and to serve what purpose it is impossible to divine.

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- "The very magnificence of the buildings, the well-laid out plots, the grand residences and the army of servants and peons serve to over-awe the ryot and bewilder his wits. So that the class of people for whose benefit such institutions should exist derive not the least benefit. With all this what do you think the department has done last year. Plans and estimates for buildings on a vast scale have been prepared for opening a new school at Taliparamba. Furthermore ten new appointments in the Indian Agricultural service, chemists, economic botanists, agrostologists, bacteriologists and what not, were sanctioned and most of the places filled up and six gazetted assistants to the 'ologists' above mentioned were created and the post of an assistant director was created to assist the over-worked professor of agriculture who had to teach a smaller number of students. A more heartless and sinful waste of money, it is impossible to imagine and this is the first fruit of the new transfered subject of Development.
 - "What have the experts newly created done or have been doing?
- "Chemistry.—1t appears that owing to lack of gas, not much work could be done; but certain soils were analyzed and some report is being written by the acting chemist.
- "The Economist Botanist for cotton came, and after some time, his official designation was decided to be 'cotton specialist.' Of course there was no special work waiting for the expert, and so stationed at Coimbatore with inadequate temporary laboratory accommodation, he took charge of the Anamalai-Cambodia station. He is busy improving Cambodia cotton and a lengthy paragraph in the report of the Director of Agriculture is devoted to showing what the expert is discovering with regard to Cambodia cotton. There is one very useful fact he has discovered, namely, the single plant selections of cotton which had been produced during the last two years under the superintendence of Mr. H. C. Sampson were not single selections, but mixtures of the produce of two or more plants. Not only has this been discovered, but this mistake has been traced to the carelessness of the assistant farm-manager. We do not know what other work will be found for the cotton specialist. Apparently at present the circumstances are not favourable to his work and the expert is waiting for work to be given to him. The other experts and the gazetted assistants are examining strains of paddy, grass and pests. Some research work seems to have been done for the benefit of certain planters.
- "Some more experts who are to be recruited from England are expected to arrive as soon as buildings and quarters at a cost of 5 lakhs are completed. It does not appear that any urgent work is waiting for them. The foundations of the buildings have been finished, but I pray that either the building work may be stopped or, if that is impossible, that simpler and cheaper designs may be adopted. It is heart-rending to contemplate that while colleges in medicine, engineering, forest and even in arts have been supplying men who are doctors, engineers and those otherwise useful to the State or employees in public and private services, not one man that has come out of the Agricultural College has been found or heard to be useful for the advancement of agriculture.
- "There was also, during the year, a reorganization of the agricultural engineering section and it seems that the Agricultural Engineer could not do much work owing to want of an office and workshop, and for the latter,

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plans are in preparation. A better illustration of the policy of drift of the Government, firstly to create a highly-paid officer and then to find work for him, it is difficult to find. The Agricultural Engineering Department, if properly equipped and managed with a workshop with all modern appliances, will be of some use to the ryots, but all the money goes to pay the experts and gazetted officers, and no money is left for equipping a workshop, although the improvement of this section was said to be necessary in several reports of past years.

"The old ruinous policy must be scrapped and there must be a change of heart and change of policy in this all-important Department of Agriculture.

Money can well be spent to the lasting benefit of the ryot and tax-payer, the backbone of our agricultural country, if the right methods are adopted and the department is more manned than at present by persons who know agricultural conditions peculiar to this land and have intimate knowledge of the difficulties of the ryot.

"It is not my object to deprecate the value of scientific research and discovery or speak disparagingly of the work—the important work of specialists and experts. Scientific work and discovery may bring lasting boons. But my point is that it is possible to waste money on expert knowledge or research work more lavishly than absolutely necessary and all that money can be spent in solid, constructive and instructive work which will reach the ryot immediately."

(Here the bell was sounded and the speaker resumed his seat.)

Mr. V. P. Parkeirswami Pillai:—"Sir, eighty-five per cent of the population of the country is said to be agriculturists. Many of my hon. Friends here complained that too much money has been spent in this department. The work done by this department is of immense benefit to the agriculturists. No other department has such immense potentialities for doing good to the country as this department. So instead of asking the money to be cut down, we must be prepared to vote more than what we are giving now.

"Of course, at the commencement it may be costly, but in the long run, we shall reap the benefits. We have not given them sufficient time to develop their projects. Besides, the experts we are getting from foreign countries have got to learn the climate of our country, the nature of the soil and other cognate things, and to find out in what way all these pests could be removed. All these things must necessarily take time. So, instead of asking the money to be cut down I do think that we must give more money. Whatever is done now is not properly developed so that people may be benefited by it. The number of inspectors must be increased enormously, and demonstration work must be carried on on a larger scale. These experts may then be able to succeed in their experiments and justify their appointment to the Government. But it is the people that ought to be convinced of it, so that for this purpose in every taluk at least, a demonstration farm should be opened. Otherwise the work of these experts will be thrown away. With these observations, I beg to oppose the reduction."

Mr. S. Arpudaswami Udaiyar:—"Sir, the hon, the Mover emphasized the importance of chemical manuring. I think that before we introduce the chemical manuring, we must have a knowledge of the bio-chemistry of the

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soil, what chemical manures should be made use of, in what proportion these manures should be employed. All these questions presuppose a fair knowledge of the soil in the different parts of the province, a comprehensive scheme of soil-analysis, both mechanical and scientific, of the quantity of potash or other minerals and the nature and quantity of organisms present in the soil. In respect of popularising these manures I think it would be more advantageous to the agriculturist to be told how he may derive very great benefit from the proper use of the farm yard manure and also how it will do him immense good to raise a crop of leguminous plants. For agricultural experts themselves are doubtful of the results obtained by an indiscriminate use of costly fertilizers or chemical manures. There are many agricultural operations which are mechanically gone through by the agriculturist. He has perhaps an empirical knowledge of all these things; and the researches made by specialists have proved that all these empirical methods are certainly very good and very useful. (Hear, hear.) A rational application of these methods with such improvements as admit of being introduced at very little cost will be productive of greater good than the extensive use of costly fertilizers.

"Secondly, some remarks have been made with regard to the work of the specialists. I think, Sir, I am in duty bound to bear testimony to the very good work done by the specialists, especially in the Tinnevelly district. I speak of the Tinnevelly district because my experience does not extend to other districts. My hon: Friend Mr. Somasundaram Pillai is not here. The other hon. Friend Mr. Shanmukham Pillai will surely bear me out when I say that the cotton crop in the Tinnevelly district has been free from certain pests which had been attacking the crop in the past and making the cotton grown there very inferior in quality. Owing to the work of these specialists, we find a better cotton crop, and this crop contributes very much to the prosperity of the people of the Tinnevelly district.

"The third point, Sir, is that a great deal more has to be done by these specialists. There is therefore no lack of work for them. We do not know for certain what are the precise functions of the different organisms on the soil which are responsible for liberating ammonia and certain acids. What those organisms are and what are their respective functions, how they can be brought in to the soil in such numbers as are necessary for conferring fertility on the soil, all these are questions that must be studied scientifically before they could become matter for demonstration. As regards the last point, that is, demonstration work, I feel that it is not necessary for a special staff of officers to be appointed for this purpose. The present staff can cope with this work. There are, besides, a number of pamphlets issued by the Publicity Bureau and the Agricultural Department, and many more such pamphlets might be issued. And popularising these pamphlets, having by turns a great exhibition in the different districts, which will attract all ryots. especially the wealthy landlords, would go a great way towards educating the people in all those very indispensable and necessary things, which ought to be known to every ryot and a knowledge of which, I believe, will surely contribute to the agricultural prosperity of this province. Therefore, very far from thinking that the Agricultural Department, as it is now run, is a burden on the tax-payer, I think that the benefits which the department has already conferred upon the ryots of certain districts will be extended, day by day, enriching this province. Considering the other and more important Mr. S. Arpudaswami Udaiyar

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branch of the work of the department, the many agricultural pests that have been successfully eradicated and will continue to be eradicated if specialists like Mr. Barber and others go on with their researches and the experiments to have a better crop of sugarcane and to find certain remedies for certain insects that affect not only sugarcane but other crops as well, considering all this, I believe it is possible for us to say confidently that this department is doing good work."

Mr. O. TANIKACHALA CHETTIYAR: - "I have listened to the speeches of the hon, the Mover and Mr. Vellingiri Goundar. Whatever excuse there may be on the part of the mover for not quite appreciating the work that has been done in Coimbatore, I find there is none for my friend Mr. Vellingiri Goundar. Probably he is illustrating the truth contained in that wellknown statement 'nearer the Church farther away from God' For he happens to be at Coimbatore, and day in and day out he probably sees the palatial building of the Agricultural College and therefore he seems to think that it is not doing good work. Sir, I have a different tale to tell about it. I happened to go there only about six weeks ago on a professional business and took advantage of that occasion of going around the whole College through the courtesy of various professors there, European and Indian. There I saw what was being done, and I was particularly struck by the series of experiments which have been carried on and which have resulted in successfully spraying sulphate of copper by mechanical appliances. All kinds of useful researches are made there. Thus, they were able to put a stop to the pests that attack sugarcane, cotton and maize crops and grapes. I'hat discovery is the result of a long series of experiments, and therefore you cannot judge of the work done by the department only by the number of men turned out, but it must be judged by the quantity of useful work done there."

Mr. V. C. Vellinger Goundar:—"I am not much concerned with the work of the department. I have only given the general policy. I did not touch upon the work of the department which my hon. Friend Mr. Tanikachala Chettiyar is referring to."

Mr. O. Tankachala Chettivar:—"If I have any complaints against the Minister it is rather that he has not fought sufficiently with the hon, the Finance Member for giving him the proper amount of funds. I find in the budget estimate of 1921-22 the total including votable and non-votable items to be $18\frac{1}{2}$ lakhs of rupees. This time it is only $16\frac{1}{2}$ lakhs. I suppose it is to be accounted for by the fact that owing to the financial stringency, the pruning knife that has been applied all round has also been applied to the Agricultural Department with the result that the provision under this head has been reduced, and instead of deprecating the fact that money is being spent, we are to fight for more money being placed at the disposal of the Minister, so that he may be enabled to carry on the useful work which is being done by this department on a larger scale."

Rai Bahadur T. M. NARASIMHACHARLU:—"I have tabled the next motion but I would prefer to speak on this motion as I do not intend to embarrass the hon. the Minister in his attempt to develop the agricultural progress of this country. It is not my object to say that the amount spent is not properly spent. That is not my point. We do require experts and we do

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require researches which are of immense use to the rural population. It is well known that the masses consist mostly of agriculturists. It is also equally well known that their methods of agriculture are almost primitive. Consequently there is a necessity for engaging experts and more experts too, if possible, for finding the means to improve the agriculture of the country. My complaint is that the masses have not yet been benefited by the researches that have been made by these experts. They are very simple people; they are ignorant people; and they cannot be expected to understand the technicalities of these things. What I would urge is that these things should be made so simple and so easy, both by ordinary, simple language and by demonstrations in every district and in every taluk, so that the people may have the fullest benefit of the researches that have been made by the Department of Agriculture. It is no use to discover improved methods and to lock them up in one's heart or in one's bureau. The great use consists in disseminating that knowledge so that it may reach the masses and they may appreciate and follow it up in their methods of agriculture. That is the thing that is essential, and my complaint is that you can rather forego some of the extravagant expenditure that has been allotted in the way of contingencies and other things and utilize that amount for the propagation of the benefits that have been discovered by these experts to the advantage of the masses. That is my point. Therefore, Sir, I submit that that is the point which the hon. the Minister will be pleased to bear in mind. In fact, in my district, people know very little of what is being done in the Agricultural College of Coimbatore or elsewhere. They are in the very same state as they were 25 years ago, and will the hon. the Minister be pleased to send some experts there to propagate their knowledge among the people of my district so that they may also be benefited by such knowledge? Can he not start a farm there under the guidance of one or two experts and demonstrate according to the nature of the soil and the nature of the manure available there? Can he not demonstrate the benefits that have been discovered by these experts? At present, sufficient provision has not been made for achieving such purposes That is my point. Therefore, I say, both in the matter of seeds, and in the matter of the proper kinds of manure that should be applied to the soil, the method of ploughing the soil and cultivating it at proper seasons-all these things, I think, an expert will be able to do by demonstration in the locality.

"I say, Sir, that the masses are not so stupid as not to understand the benefits if they are demonstrated to them. If the masses do not understand them, it is because they do not know or because what is being done does not really benefit them. Therefore, I submit, the whole attention of the department must be directed to the propagation of the knowledge to the masses. That is why I have tabled another motion, but I prefer to speak on the general motion because the real complaint is that sufficient attention is not being given to the propagation of this knowledge to the masses."

Mr. C. V. Venkataramana Ayvangar:—"I had no intention of saying anything on this motion but I am afraid that after hearing the speech of my friend Mr. Tanikachalla Chettiyar—I find myself compelled to make some remarks—I cannot but compare him to one of those holiday tourists who come and stay either in Government House or some hotel and go away after a few days and say that they have knowledge of everything in India,

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and that nobody except themselves, whether Indian or European, knows so much as themselves. I was surprised to hear from him that he had a full knowledge of everything that is going on in this Agricultural College after a few hours' visit to that college which he was able to spare during his short trip to Coimbatore on professional engagement. He went on to criticise and misinterpret the words of my hon. friend, Mr. Vellingiri Goundar, who only said that a good deal of money that is spent was being wasted.

"No one in this House or anywhere else says anything about the large sums of money that are reasonably spent by this department. We, on the other hand, are for spending more money in this department reasonably, but we emphatically say that some money is also wasted now. So that, the hon. the Minister will do well to see that money is not wasted, and that the allotments made are spent for useful purposes. Mr. Vellingiri Goundar never said that there is absolutely no use of this college. His point, and my point also, was that the ryot population does not get any benefit that may be compatible with the large sums of money that are spent upon this department. He said that the college was primarily intended for the sons of the soil and for the actually tilling ryots. But now if at all it benefits anybody it benefits only the non-cultivating ryot. The actually tilling ryot does not find this college of any use to him. Unless a man is prepared to take up Government employment or employment under a zamindar having a big estate, the education imparted in this college is found to be practically of no use to him as an actual tiller. By this I do not mean to say that education in this college is of no use at all.

"Mr. Tanikachala Chettiyar was correct in speaking highly about the spraying machine. I have found this machine to be useful, and I have got one myself. I am making use of this in my compound where there are a lot of flower plants, fruit trees, grape vines, etcl. Therefore when I was saying something about the wasting of money by this department I do admit also that the department has done some good. The Mycologist has been doing very good work. It has considerably benefited fruit trees, flower plants, etc., and the grapes which are grown in several districts, but which are not to be found much in Coimbatore. With all this we do think that much more good can be done if only this money is better utilized. Mr. Vellingiri Goundar is one of the richest ryots who actually cultivate the land, and what is more, I believe, he is also one of the non-official visitors to this Agricultural College, and, if anybody's opinion is weighty at all in this matter, it is his. Mr. Vellingiri Goundar has visited the college several times, and he and myself had occasion to go to the college together once, and I can say that it is not want of appreciation as the last speaker was induced to remark but it is a desire to see something more useful done by this college that Mr. Vellingiri Goundar was speaking on this motion, and were it not for the fact that his time was up he would have proved it. Our object was not to curtail the allotment We want more money to be allotted, but we still maintain that much money is wasted by this department, which can be utilized in better ways such as giving to the actual farmer information about scientific researches, etc. In this way we think something more useful could be done not necessarily useful to us educated people alone, but to the tillers of the soil also.

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"In this connexion I may say that I have purchased a monsoon plough and given it to the tenant. This plough remains as new now as it was at the time I purchased it. It is not capable of being pulled by ordinary bulls. So, what I say is, much of the improvements effected by the department is not capable of being used by the ordinary tiller. Lastly, I think that the Agricultural College will justify the money spent upon it only if it is able to give to the tiller its experience and knowledge whereby he may work with a little less expense and with a little less difficulty."

The hon. Rai Bahadur K. Venkata Reddi Navudu:—"Mr. President, my first duty is to thank my friend Mr. Narasimhacharlu for the attitude he has taken in this matter. While he criticised the work of the experts he very generously stated that we require more research officers and more experts if possible. He more than once kindly acknowledged the services rendered by the department and by the experts. It is perhaps not surprising that my friend on the opposition bench, Mr. Venkataramana Ayyangar, should go to the defence of Mr. Vellingiri Goundar seeing that both of them represent the same constituency. There is nothing in what my friend Mr. Tanikachala Chettiyar had said which could be taken exception to. My friend Mr. Venkataramana Ayyangar, in defending Mr. Vellingiri Goundar, said that the ryots were not benefited, and that the sons of the soil were not educated in the school so that they might go back to their fields and utilize their agricultural knowledge on their own farms.

"Well, Sir, on the question of the benefits, I have already submitted to this House that judging only from the seed rate more than a crore of rupees has been saved, and that the various diseases that were prevented or cured in the case of the extensive vine yards in the Madura district showed what profits were derived owing to the work of these Agricultural officers. Sir, I shall mention only one other instance, because there is no use repeating those to which reference had already been made by me if hon. Members like my friend Mr. Vellingiri Goundar are not prepared to accept our statements. Reference has been made to the work of the Agricultural Department and of the experts in dealing with the cotton diseases of the Coimbatore district, and the new strains that were introduced there, and also to the development of cotton cultivation in the districts on that side. Quite recently the department has prepared an estimate of the work done there, and the benefit that has accrued to the people thereby. From the year 1908 to the year 1918, we calculated the benefits that were derived by the people on account of the Agricultural Department and by their advice on the one single item of the strains that were employed eliminating all factors like the average rise of prices due to world causes It has been found that the money value of the increased outputnot due to other causes but that due to our own exertions-came to Rs. 50,00,000 and that in one year alone. The value of the produce of the year 1918 alone was increased by Rs. 50,00,000, and this covered, I was about to say, the whole expenditure of the Agricultural Department, from the year 1908 to 1918. Let me emphasise this, Sir, with your kind permission. From the year 1908 to the year 1918, for a period often years. the cost of the Agricultural Department was not more than Rs. 40,00,000. and the increased profits made by the cotton producers in those districts, profits which could be attributed only to the work of the Agricultural Department and the research work of the experts in one single [Mr. K. Venkata Reddi Nayudu] [24th March 1922

year, viz., 1918, alone, came to Rs. 50 lakhs. In calculating that, they have eliminated the increase in prices due to world causes and the various expenses that must have necessarily been incurred in producing cotton. Eliminating all these causes, and taking into account only this single cause of the work done by the department of Agriculture, it has been discovered that an extra profit of something like Rs. 50 lakhs has been made by the ryots in a single year. Now, I leave it to the House to judge whether in the face of these circumstances it is justifiable to say that the ryots have not been benefited by the Agricultural Department or by the work of the Agricultural experts."

Mr. C. V. VENEATARAMANA AYYANGAR:—" What I said was that the benefit to the ryots was not as much as may be commensurate with the amount spent."

The hon. Rai Bahadur K. Venkata Redoi Navudu:—"I am giving an estimate of the amounts spent. From the year 1908 to the year 1918, the whole cost of the Agricultural Department was only Rs. 40 lakhs, and in the year 1918 alone, the increased profits due to the direct result of our work was Rs. 50 lakhs."

Sriman Sasi Bhushana Rath Mahasayo:—"May I know, Sir, what is the basis of these statistics?"

The hon. Rai Bahadur K. Venkata Reddi Nayudu:—"I have no objection to place the details of these calculations before my hon. Friend and he is at liberty to criticise them.

"Well, Sir, as regards the question of the sons of the soil, my friends are carrying coals to Newcastle when they suggest it to me. My friend from the Kistna district knows that I belong to an agricultural family, and if any one can claim to be interested in the agriculturists of this country. I can lay as much claim to it as anybody else. Well, on this question of the sons of agriculturists being trained in agriculture, you, Sir, Mr. President and your Secretary are well aware that attempts in that direction were made, and in fact I have got in my office a number of reports from our worthy Secretary when he was Director of Agriculture wherein he complained of this very thing and wanted to induce agriculturists to send their sons for agricultural training. We recognize that the elementary duty of this department and the object of this agricultural college is to see that the sons of the soil, sons of agriculturists are trained, so that they may go to their fields and utilize that knowledge on their own farms. But unfortunately in this country, our people are so educated that their studies are only pursued for gaining wages or salaries. For years our own university education has been like that. What can we do? Fifty years of university education have not produced a single inventor in this country. And why? Because we have been trained to be officers or clerks or something of that kind. Education for itself, for its own sake, has not been attempted in this land, and it is a curse of the country itself and not a fault of the Department of Agriculture or of the authorities of the Agricultural College. Why lay it at the door of the Agricultural College them? By all means let them (the sons of agriculturists) come, we welcome them and we are prepared to give them scholarships. Nothing would please the Agricultural Department and myself or the Government more than to admit them to the agricultural classes, and to see that they are trained, because we know that those who serve the Government in

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these departments after all, however good the work they have done, do it for the sake of their own appointments, whereas if the sons of the soil are trained we recognize that they get the training for the country's and for their benefit and for their advancement, and when the production is increased, naturally the national wealth will be increased and it will be of great benefit to the country at large. To charge us therefore that the sons of the soil have not got the benefit, to charge the Agricultural department or the authorities of the College of Agriculture is, I think Sir, not fair.

"Now I shall turn to the more reasonable criticisms, if I may say so, of my Friend Mr. Ramachandra Rao and others. Mr. Ramachandra Rao, Sir, was referring to chemical manures. I am aware, just as he is -we belong to the same place and the same district—that almost all the earth known as 'pati' earth is being dug out and if we go to the agricultural villages of those parts, we shall find nothing but big pits going to 20 feet below the surface of the earth. The attention of the Government was drawn long ago to the existence of these pits, and various attempts have been made to replace this 'pati' earth by chemical manures. Reference has been made to the fact that it was advised that these manures should be obtained from Messrs. Parry & Co. Well. Sir. I do not know what harm there is in so doing when there is only one firm which is able to supply these manures. Why should we not recommend the people to go to that company? Those of our friends who have seen the Ranipet works are in a position to know what attempts they are making to produce these manures. It may be in the first place in their own interest and to get profits, but at the same time it is a work which is not done by others, and certainly the people of this country ought to be thankful to Messrs. Parry & Co. for their exertions in trying to produce these manures. It has been said, Sir, that the railway fares are in the way. That is quite true, and I may tell my hon. Friend for his information that this Government have been trying their best to induce the Madras and Southern Mahratta Railway Company and the South Indian Railway Company to charge lower fares for the freight of the manures from one part of the Presidency to another. Unfortunately, we have not yet been able to make them consent. They put one or two conditions, namely, that a certain number of tons should be carried every year because it may not be possible for them to earry small lots as they cannot make arrangements for it. There was also another difficulty as regards carriages, because they wanted to carry it in open trucks, and we could not consent to it, because owing to exposure in the air and moisture the manures would be spoiled if But still the question has not been given up, and it is now under correspondence between this Government and the Government of India. No pains will be spared and every possible attempt will be made to see that some concession is obtained from these authorities. I am afraid we cannot compel them, but we must only appeal to their good sense and better patriotism, and I expect, Sir, whoever may be the authorities, they will be patriotic enough so long as they are in this country.

"Well, Sir, my friend has referred to fish guano, fish manures and other forms of manure and wanted that the Government should undertake the preparation of these manures. Let me at once inform my hon. Friend that Agricultural officers have been collecting and mixing up new forms of manure and selling them in the Tanjore district. If we go further than that, it would at once make the Government a trading firm, which it is not the

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intention of Government to become, nor will it be the idea of any one here to drive Government to that length. It is not right that Government should compete with private enterprise when there is a firm forthcoming willing and ready to prepare these manures and sell them. Certainly all that the Government could do is to negotiate with them for better terms, but certainly not to compete with them on a commercial basis and any arrangement that we might make in the preparation of these manures or selling them will at once be challenged by merchants who would say that Government have no business to come into the trade. All the same, Sir, we have been doing some pioneering work and to that extent we are in conflict with traders. Hon. Members are perhaps aware that in the Trichinopoly district there are what are known as phosphatic nodules. Phosphorus is to be found in the stones all over the district, almost on the surface and more often buried in the earth. And the Director of Industries is just now engaged in carrying on experiments in that direction. If we succeed, I put it cautiously, Sir, if we succeed, because it is after all an experiment and all experiments are beset with the possibilities of failure, certainly we may be in a position to place at the disposal of the country large quantities of phosphatic manures. The 'pati' earth in the Godavari and Kistna districts is really the old earth of deserted villages, the nitrates and the salts used by the people going to the bottom of the earth or at least underneath the surface of the earth and getting mixed up with the earth; that earth is used in these districts. The fact is that there is more phosphorus in it, and if this phosphatic nodules problem should become a success, it can certainly replace that 'pati' earth successfully. Then, Sir, there is the question of fish manure and fish guano. to which reference has been made by Mr. Ramachandra Rao, and there is the farm manure and the cattle manure, and then there is the green manure. In the Godavari and Kistna districts, as my hon. Friend is aware, apart from the green leaves of the forest known in the Guntur district, they raise certain crops, sunhemp for instance, allow it to grow until it flowers, then cut it and till the land with it, with the result that a manure is obtained. All these things have been engaging the attention of the Government of Madras and the department of Industries and the department of Agriculture. I do not think, Sir, that it will be fair to us to say that this question of manures has not been attended to, or that sufficient attention has not been paid to it."

Diwan Bahadur M. RAMACHANDRA RAO PANTULU: — "Sir, I do not wish to take up the time of the House in replying to what my hon. Friend said, for he made several observations, and I have no time to cover the whole ground. Nevertheless, I hope he will profit by the criticisms that have been offered in this House. I should think, Sir, that the hon, the Minister has made a too zealous and too one-sided defence of the departments under his control. It is only natural and I do not wish to dilate very much on the points he has made. But I think he must recognize that the whole result of agricultural education at any rate so far as it has been given hitherto has been to supply the department with officers.

"I am perfectly certain that nobody who knows the history of our agricultural organization in this Presidency will deny the fact that the object of the Agricultural department in this Presidency has been merely to satisfy departmental needs and not necessarily to place at the disposal of the people a system of general agricultural education. As it is my hon.

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Friend will concede that, notwithstanding the very many pious resolutions that have been passed at agricultural conferences, the whole system of agricultural education has not been perfected with a view to place it at the disposal of the people. I maintain, whatever may be said to the contrary, that that criticism is just and that every hon. Member who criticized the system in that way is just."

The hon. Rai Bahadur K. Venkata Reddi Nayudu :-- '· I concede that myself, Sir.''

Diwan Bahadur M. RAMACHANDRA RAO PANTULU:—" Of that I am glad. Therefore, I think, Sir, that this criticism by Mr. Vellingiri Goundar and Mr. Venkataramana Ayyangar is made with a view to emphasise the point that the system of education should be so changed as to adapt it to the agriculturists' needs. I do not wish to go into the various matters referred to by my hon. Friends. Even Mr. Tanikachala Chettiyar seems to have a complaint against the Minister—"

The hon. Rai Bahadur K. Venkata Reddi Nayudu :-- " His complaint was that I did not demand more funds."

Diwan Bahadur M. RAMACHANDRA RAO PANTULU: -- "There ought to be an agricultural organization in this country perfect in all respects. The hon, the Minister in charge referred to the fact that Messrs. Parry & Co. are already dealing in manures and said he should not come into collision with private enterprise. I trust the Minister will see the limitation of that doctrine. That doctrine was accepted for years and I believe it has been dethroned by the Industrial Commission and in a matter such as this where tremendous quantities of bones are exported from the east coast which could be made available at a nominal cost, if a little trouble was taken by the department of Agriculture, I submit, Sir, that to stand by this doctrine of colliding with trade interests cannot be accepted at any rate by me. I think Mr. Arpudaswami Udaiyar also referred to this matter. 1 am perfectly aware of the methods of improving the soil. Agricularists say that this is not enough now and that artificial manures have come into use. It is right policy to use them wherever they can be applied with advantage. There is one other matter which I would like to refer to. My hon. Friend Mr. Arpudaswami Udaiyar was rather inclined to support the Publicity Bureau as against demonstration. I think, Sir, there is no use publishing a number of leaflets. I am myself a member of the Publicity Bureau and I know something of that body and its limitations. What is wanted for the ryot is ocular demonstration which cannot be made by the Publicity Bureau."

Mr. S. Arpudaswami Udaiyar: --"II also spoke of exhibitions being held in districts."

Diwan Bahadur M. RAMACHANDRA RAO PANTULU:—"I do not answer my Friend. It we have an enormous finance at our disposal, we may get exhibitions in this matter too. In fact exhibitions are not quite favoured just at present. I think the object of this motion has been stated; and I trust in the matter of demonstration my hon. Friend said that he is negotiating with the Government of Iudia and he must in the matter of freight entirely depend upon the good sense of the railway company. I believe the question of rates are entirely with the Government of India. And even as regards the railway companies, their rates are always subject to the sanction of the Railway Board and I believe that a committee is about to be

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The motion was by leave withdrawn.

Motions 602 to 604.

The following motions were not made:-

Rai Bahadur T. M. NARASIMHACHARLU:--

602. To reduce the allotment of Rs. 14,28,421 for Agriculture by Rs. 1,00,000.

Mr. B. MUNISWAMI NAYUDU:-

603. To reduce the allotment of Rs. 14,28,421 for Agriculture by Rs. 5,000.

Rao Bahadur T. BALAJI RAO NAYUDU:--

Rs. 3,80,100.

Motion 605.

Rao Bahadur A. S. Krishna Rao Pantulu:—"Sir, I beg to make the following motion:—

605. To reduce the allotment of Rs. 14 82 takks for Agriculture by Rs. 100.

"In view of the fact that the question has been discussed from various standpoints on the motion of Mr. Ramachandra Rao, I have very little to add. And if I now say anything I would lay special emphasis upon two aspects and leave it to the department to pay sufficient attention to those matters. I may premise by saying that the hon, the Minister need not enter into any special defence when such criticisms are offered and need not be under the impression that any such criticism is merely intended to expose the faults of the department. On the other hand, this is just the time and place for any useful suggestions to be made regarding the work of the department and we hope that these suggestions, in the fulness of time, be given careful consideration. I do not subscribe to the view that the Agricultural department is not in any way useful or that it is not doing useful work. And there is no one here who will advocate that appropriate funds ought not to be voted for the maintenance of the institutions. If still members find it necessary to draw attention to certain defects, it is because they feel that, notwithstanding the work hitherto done in the past, the work actually turned out is not satisfactory and really useful to the masses. The only point that I wish the hon, the Minister to consider is that while forgetting his calculations of the 50 lakhs that have been spent on the department and the 50 lakhs that have been saved in cotton in one year, he will consider whether the benefits that can be expected have been afforded to the peoples concerned and if not, what are the causes which have led to such a state of things. There is no use of justifying the institutions or the experts or the experiments so far as it is not possible for him to satisfy the public at large who are really the people for whom these schemes are meant to be beneficial. Within the limited time at my disposal, I cannot expand the subject. But judged by the results of the operations, it will be seen that the people have not really been benefited by it.

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- "No doubt the problem for consideration is whether a bureau of information in central places would be useful. The hon Member Mr. Tangavelu Pillai drew attention to it and the hon. the Minister promised to make inquiries. I only wish to ask whether the officers touring in the districts did specially take advantage of their presence and hold conferences with agriculturists and elicit information from them. Reports of touring might have been sent up and those reports might have been considered by the superior officers. What I really think it necessary is whether in each and every one of their tours they made it a point to have a conference with the leading agriculturists of the locality and discuss with them the problems affecting agricultural improvements.
- "In addition to it the formation of boards in each district or at least in important centres will serve a useful purpose. My hon. Friend referred to the Central Advisory Board. But that will not serve much useful purpose. The conditions in each district are different and the Central Advisory Board can perhaps discuss general questions of policy for the whole of the Presidency. But so far as particular districts are concerned, there must be similar boards constituted in each centre on a satisfactory basis.
- "The second point is that sufficient attention has not been given to the question of agricultural education in the lower stages. It will be remembered that from 1913 and 1914 onwards, various resolutions were moved in this Council for the establishment of agricultural schools in several districts. This was considered very desirable even in the various conferences held for the purpose, and recommendations also were made for the establishment of agricultural schools. I may particularly refer to the conference at Simla on the 18th and 19th June 1917. There it was specifically ctated notwithstanding the discordant note by Mr. Wood—
- 'The conference are of opinion that it should be laid down as a goal that every rural district should have one or more agricultural middle schools usually situated near to demonstration or experimental farms.'
- "Mr. Wood wishes to qualify acceptance so far as regards Madras by expressing his view that for that province concentration on demonstration is more desirable than the establishment of schools. These resolutions were passed in the year 1917; but the hon, the Minister will be satisfied that very little has been done to give effect to the recommendations of the conference.
- "Again, Sir, coming to the question of primary education, it will be found that definite suggestions were made at the conference as to the extent to which primary education should be made useful to the masses.
- 'The conference also strongly insist on the desirability of adapting primary education in rural areas more closely to rural needs. Whilst agreeing that no attempt should be made in primary schools to teach agriculture or horticulture as such, the following suggestions are made towards the solution of this problem. Nature study should be made a necessary part of the curriculum in rural schools.'
- "And then they say that 'special attention should be paid to the training of rural teachers, preferably in a separate training school' and that 'the Agricultural department should, when opportunity offers, co-operate by vacation courses for such teachers.'
- "In spite of these two important things, I wish to know if anything has been done in the way of training teachers in the matter of agriculture so as to enable them to get the advantage of the training and to give proper

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instruction to their pupils on the subject. I believe, Sir, that whatever might be the result of the instruction given in the Agricultural College, whatever might be the final result of the experiments carried on, it may be taken for granted that if the mass of the people of the country ought to be benefited, it must be through these new types of schools brought into existence in large numbers. And unless definite steps are taken in the direction, I do not think any benefit would come out of the operations of this department."

The hon. Rai Bahadur K. VENKATA REDDI NAYUDU: - "My hon. Friend started by saying that we should not object to criticisms for it was not at all the object of this House to minimise the usefulness of the Agricultural College or the expert staff, but that useful suggestions were male in this House for the benefit of the department and the Minister in charge That spirit, Sir, I fully appreciate, if I may so put it and no one will be more glad than I to receive any such criticism. My learned Friend has said that there is no use in merely justifying the experts or the college. He was perfectly justified in saying that from his own point of view. I thank him for it. But there are others, Sir, who stated that the department was 'barren of all results' and had 'not emerged from the stage of experiments,' and so on and so forth. Lam glad, Sir, at the turn the debate has taken to-day. From an attack against the college and the experts, it is now suggested that we are all right, that our experts are pretty good people, that the college has now done some little good work, but that we must see that the knowledge of such good work is brought to the country and that the agriculturist is benefited by it. I welcome that criticism, but let me tell them that even in that direction we have not been idle. We have got a regular staff of demonstrators, upper subordinates and lower subordinates. About 125 of them are going about the districts and are spreading the knowledge and the results not merely of the experiments in the Research Institute, but of the experiments on the Government farms, and these results are carried even to the fields of the agriculturists. Let me explain further. The first stage for the expert is to find out something, whether it be the cause of a disease, the life-history and the cure of those mischievous little things, the bacilli or the microbes or whatever they may be called, or it may be to produce a new strain by the combination of different plants from the flowers of two different plants. That is one thing which I hope many of my hon. Friends-I know some of them have seen-will go and have a look at in this Institute, how from the male flower of one plant and from the female flower of another plant, eliminating the female of the first one and the male of the other, a combination is made and a new strain is produced. When this is done, Sir, it is experimented on the farm at Coimbatore. When that succeeds and a new strain has been obtained, it is transplanted in the farm and a small tract of land is cultivated with the new strain. That does not suffice, because what grows in Coimbatore may not grow elsewhere. Then it is taken to the farm at Samalkota if it is the Northern Circle, or to Manganallur if it is the Southern Circle, or to Taliparamba if it is the West Coast and experiment is made there. A certain plot of land in this new locality is cultivated with that new strain and the result is found out. When this is done, the demonstrators come into operation; they take the seed to the ryots, ask them to try this new strain on their own fields under the supervision of the demonstrator 24th March 1922] [Mr. K. Venkata Reddi Nayudu]

or under higher officers. They supply the new seed, tell them what manure to use, at what time to sow, and supervise the cultivation of the crop. All that is demonstration and propaganda work. I take it.

"Then, Sir, there is the Publicity Bureau which sends out considerable literature on these subjects every year. Apart from the Publicity Bureau the Agricultural department itself publishes numerous pemphlets by the thousand and by the lakh and distributes them freely. The 125 demonstrators and other officers are mainly intended for the single purpose of carrying this knowledge to the agriculturist and they are, I contend, doing their work quite satisfactorily. Of course, I appreciate my hon. Friend's criticism that more ought to be done. Certainly I shall be glad to get more done. But the trouble again is the Finance department. We have to cut our coat according to the cloth that is supplied. But I have no reason to complain that a large cut has been made in my department either by the Finance department or by this House. Still we do want more money and then only greater developments will be possible.

"There is one other point which was referred to. The hon. Member Mr. Krishna Rao asked what has been done with regard to the proceedings of the Board of Agriculture and two questions were raised, namely, elementary education and middle schools. As to middle schools a committee was appointed by the Madras Government some three or jour years ago on which there were three members of the Educational department and three members of the Agricultural department. They came to the conclusion that one school should be tried in each centre; one in the Telugu country somewhere near Anakapalle, another in the south in the Tamil country and a third on the West Coast. In the West Coast, the Taliparamba school should have been started this year. But unfortunately the buildings were delayed. But I may tell the House that the buildings are nearing completion and we expect to start the school in a very few months. Orders have also been issued for the school at Anakapalle. Unfortunately again, the question of finance came in our way. I may also bring to the notice of the House that we wanted to have the school building and the quarters for the staff and teachers at Taliparamba to come into existence long ago. But it was discovered that the Public Works department estimated these at Rs. 85,000. Well, I said that it was impossible. I may say that it was the late Mr. Stuart who sat with me for three hours on one occasion to discuss this one question and took away the papers saying, 'I do not want to send it to the Public Works department, but I will do it myself.' We have got now an estimate for something like Rs. 25,000 or for nearly one-fourth of the original cost. This was approved and the buildings are nearing completion. But even Rs. 25,000 in a year like this would not be a possibility for a secondary school, for added to the further expenditure on the staff and on the studentsbecause some scholarships will have to be given to students to attract themit will come to a large amount. If money is forthcoming to-morrow I shall be able to open a school at Anakapalle and one in Palur in the south or in some other places. But funds are wanting and schools could not be opened. It is not because the Government are wanting in sympathy for this education. It is not because we have not made attempts to start the schools. In fact, we have appointed committees, we have the reports, we have got the schemes ready, the only thing wanting is that blessed thing which is wanting in the budgets of all countries just now-money.

[Mr. K. Venkata Reddi Nayudu] [24th March 1922

"As regards elementary education, similar attempts have been made at Anakapalle and Samalkota, where we have elementary schools and where farmers' sons are given the elements of education in agriculture and in Palur also there is a school. We recognize that it is not enough. It was stated a little while ago that 80 per cent of the population of this country consists of agriculturists, and it is only right that agricultural education should be brought home to these villagers. It is a great problem, Sir, and one in which the co-operation of the Education department is absolutely necessary. But I may tell again, Sir, for the information of this House, that my hon. Colleague the Minister for Education has been trying to introduce agricultural classes in the elementary schools and with my consent and with my co-operation he has been able to appoint an ordinary teacher, an L.T., to sit together with an officer of the Agricultural department and prepare textbooks for these elementary schools in agriculture in the vernaculars. These two officers are just now working at it. As soon as the text-books are ready, I expect my hon. Friend Mr. Patro to introduce these text-books into the e rriculum of the elementary schools; for each class certain hours in their education are to be devoted to agricultural studies. Hon. Members are probably aware that already there is what is known as gardening, however insignificant it may be at present. It has already been introduced in the elementary schools. With the help of these agricultural classes and with the help of the little gardens that they have got in the schools some little education in agriculture it is possible to give. But that does not in the least take away my responsibility or the responsibility of my department for the spread of agricultural education. But I may say again that it is not because we have not made any attempts to do it but because we have no funds that we have not been able to do more."

Mr. V. C. Vellinguri Goundar:—"Sir, I have no time to speak on the farms, but now let me say a word about the farms started under the auspices of this department.

"The central farm at Coimbatore can be worked on really economical and profitable lines, if there is not such a costly staff of supervision, and there can be established a really good breeding farm with adequate provision for grazing grounds, thus saving unnecessary purchase of cattle, bulls and also fodder.

"The farm at Chintaladevi appears to me to be an excellent idea. But what has been hitherto done and proposed to be done makes me pessimistic as to its future not only from the point of view of utility, but also from the point of view of economy. This scheme was taken on hand in 1918, and after the lapse of so many years, the roads are being laid out. The place is thirty-six miles from the nearest railway station and a wind-screen of trees is being formed and the belt of trees to form as a wind-break has just begun to grow, but apparently rainfall is not quite so favourable. Of course the Public Works department has started work on its usual scale—the work of putting up buildings and quarters. After all, this is to be an experimental farm and perhaps by the time the grand buildings and quarters are completed, the experiments may have to be given up.

"The same is my complaint with regard to the other farms, like the Pollachi cotton farm, where buildings and roads are just complete. The

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Koilpatti, the Samalkota and Bantanahel farms are other instances. Now, is it the right thing to proceed in this manner with regard to experiments? To have costly experts who can never get into touch with the ryots and who have to learn after coming here Indian conditions, Indian climate and Indian ryots and who have to undergo training to start with, to have costly buildings and quarters, and then to write learned treatises on technical and scientific matters which are unintelligible to the ryots. What I would suggest is, that Government should give up the policy with regard to experimental farms and instead start on small scales demonstration farms and have a staff who can understand the language of the country and know the local conditions and who can get the ryots to co-operate with them. would even welcome the opening in every taluk centre such demonstration farms with the help of students passed out of the college, where ryots themselves can be induced to cultivate on certain agreeable terms. To go even further, inducement in the shape of rewards, prizes or compensation can be offered to the ryots to induce them to take to methods of cultivation which the department thinks are of use to them. It is in this way by direct touch with the ryot that agriculture can be improved by departmental action and not by the expert working at the microscope and writing learned theses. The ryots in Coimbatore and in the delta tracts particularly are intelligent folk and are most hard-working and if they have not derived any substantial benefit from the department, there can be no greater condemnation. The only real and practical things which the department has done for the ryot are the improvement of cotton cultivation, spreading single seed planting of paddy, some improvements in sugar-cane selection, pumping installations, treating pulm diseases, green manure seeds, etc. But all this is out of all proportion to the colossal amounts consumed by the department and its officers and experts.

"The department is foud of dreaming in crores of money being saved to the ryot if the single seed planting and other improvements are adopted universally. This estimate in my humble opinion, exists only in imagination and can never be realized in practice.

" Another point of mine with regard to experimental farms on a large scale After the experiment is demonstrated to be a success, the necessity for its being continued ceases to exist, and the farm should be discontinued and further fields of work and development of other branches in the order of importance to the ryot must be taken up and new experiments tried. If this is conceded, where is the necessity for costly structures and residential quarters on these farms? If these farms are intended to be demonstration farms to the ordinary ryot and labourer for whose benefit the department should carry on its activities, what is the meaning in having grand structures and well laid out quarters? In my opinion, they are so much money thrown away besides their scaring away the ryot, as I said, by their very grandeur. The buildings on these farms, or of any schools, or institute in agriculture should be on the simplest and cheapest scale designed for temporary purposes and most particularly on the demonstration and experimental farms. Ambitious schemes with regard to buildings, etc., should at once be given up and opening of new farms and schools should only be undertaken after conference with the local ryots and not on mere resolutions of this Council or on one-sided expert opinion."

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[The hon. Member was obliged to resume his seat as his time-limit was over.]

The motion was by leave withdrawn.

The time allotted for the discussion of Demand XIX—Agriculture having expired, the hon the President put the question that the Government be given 14.82 lakhs of rupees minus Rs. 2,400 for the Agriculture department and it was carried.

The grant was made.

The hon. the PRESIDENT:—" Before the Louse adjourns for lunch, I would mention that it would probably be convenient if we take up immediately after lunch items of business II, III, IV and V on the agenda paper. The first is a piece of legislation which has to be got through and passed before the 1st April. The second is an amendment to the Standing Orders. And the other two relate to elections to committees. So, if hon. Members have no objection, I shall take up items II, III, IV and V immediately after lunch. (The hon. Members signified their assent.) That being settled, the House will now adjourn for lunch and meet again at 2-30 p.m."

The House then adjourned for lunch at 1-34 p.m. and re-assembled at 2-35 p.m.

II

A BILL TO AMEND THE COURT FEES ACT, 1870.

The hon, the President:—"The following communication has been received from His Excellency the Governor in respect of the Bill to amend the Court-Fees Act, 1870, which was passed at the meeting of the Council held on the 15th March last and was subsequently presented to His Excellency the Governor for his assent:—

Message from His Excellency the Governor.

The proviso which has been added by clause 6 of the Madras Court-Fees (Amendment) Bill to paragraph (iv) of section 7 of the principal Act provides for the calculation of the value of immovable property 'in the manner provided for by the next succeeding paragraph'. The next succeeding paragraph here referred to is obviously paragraph (v) of section 7 of the principal Act. But clause 7 of the Bill has introduced another paragraph aragraph (iv) (a)—between paragraphs (iv) and (v) of section 7 of the principal Act. The paragraph next succeeding paragraph (iv) of section 7 of the principal Act would thus be paragraph (iv) (a) and not paragraph (v). His Excellency the Governor thinks that in clause 6 of the Bill the words 'the next succeeding paragraph' should be omitted and the words 'paragraph (v) of this section' substituted in their stead.

- 2 In clause 9 of the Bill the substitution of the word 'instituted' for the penultimate word 'filed' would, His Excellency the Governor considers, be a verbal improvement in the Bill.
- 3. To avoid possible doubts as to the true scope and interpretation of article 11 of Schedule II it seems desirable to *omit* the words and not otherwise provided for in this Act.